## CLAIMS LIST, Comprehensive

**(1)** (previously amended, now, twice amended) a machine for measuring angles about a plurality of axes **of a single plane at a time**, comprising:

one or more multi-axis, gravity-sensing, tilt sensor(s), or **a plurality of single-axis,** gravity sensing tilt-sensor(s), situated about different axes;

a computing device, preferably a microprocessor, that receives inputs from the said tilt sensor(s), translates them into expressions of angular measurement and outputs the results for display, computation, or extraction; and

**a unitary means of essentially rigidly mounting components, said means comprising, but not limited to, a case or a frame.**

(2) (previously amended, now, twice amended) A machine for measuring angles about a plurality of axes **of a single plane at a time**, comprising:

one or more multi-axis, gravity-sensing, tilt sensor(s), or **a plurality of** single-axis, gravity sensing tilt-sensor(s), situated about different axes;

a computing device, preferably a microprocessor, that receives inputs from the said tilt sensor(s), translates them into expressions of angular measurement calculates compounded angles of the various angles it measures and outputs the results for display, computation, or extraction and;

a unitary means of essentially rigidly mounting components, said means comprising, but not limited to, a case or a frame.

(3) (previously amended, now, twice amended) A machine as in claims (1) or (2) wherein a means of information extraction is incorporated, **wherein the means may comprise, but are not limited to,** a communications port or infra-red transmitter/receiver.

(4) (previously amended, now, twice amended) A machine as in claim (1) or (2) that displays the results of the measurements and/or calculations in **pictorial or** graphic form.

(5) (previously amended, now canceled)

(6) (previously amended, now canceled)

(7) (previously amended) A machine as in claim (4) wherein multiple displays modes are controllable, being user selectable to exhibit simultaneously or sequentially.

(8) (previously amended, now twice amended) A machine as in claim (4) wherein one or more **pictorial or** graphic displays resemble the form of a bull's-eye bubble level.

(9) (previously amended, now twice amended) A machine as in claim (4) wherein one or more **pictorial or** graphic displays resemble the form of a curved-tube bubble level.

(10) (previously amended) A machine as in claim (4) wherein the displays appear on different faces of the machine's case according to the axis about which the measurements or calculations producing them are made.

(11) (previously amended) A machine as in claim (4) that, having calculated a compound angle, can display a line representing the edge of the plane in which that angle lies.

(12) (previously amended) A machine as in claim (1) or (2) that displays the results of the measurements and/or calculations in numeric form.

(13) (previously amended, now canceled)

(14) (previously amended, now canceled)

(15) (previously amended) A machine as in claim (12) wherein multiple displays modes are controllable, being user selectable to exhibit simultaneously or sequentially.

(16) (previously amended) A machine as in claim (12) wherein the displays appear on different faces of the machine's case according to the axis about which the measurements or calculations producing them are made.

(17) (previously amended) A machine as in claim (12) that, having calculated a compound angle, can display a line representing the edge of the plane in which that angle lies.

(18) (previously amended, now twice amended) A machine as in claim (1) or (2) wherein the display format is user controllable, allowing selection of either graphic or numeric format.

(19) (previously amended) A machine as in claim (18) wherein multiple displays may be exhibited simultaneously.

(20) (previously amended) A machine as in claim (18) wherein multiple displays may be exhibited sequentially.

(21) (previously amended) A machine as in claim (18) wherein multiple displays modes are controllable, being user selectable to exhibit simultaneously or sequentially.

(22) (previously amended) A machine as in claim (18) wherein one or more graphic displays resemble the form of a bull's-eye bubble level.

(23) (previously amended) A machine as in claim (18) wherein one or more graphic displays resemble the form of a curved-tube bubble level.

(24) (previously amended) A machine as in claim (18) wherein the displays appear on different faces of the machine's case according to the axis about which the measurements or calculations producing them are made.

(25) (previously amended) A machine as in claim (18) that, having calculated a compound angle, can display a line representing the edge of the plane in which that angle lies.

(26) (previously amended) A machine as in claims (1) or (2) wherein angles may be measured and/or calculated in multiple modes comprising various levels of precision and of speed of measurement and/or calculation.

(27) (previously amended) A machine as in claim (26) wherein the modes of measurement and/or calculation may be selected automatically by the machine itself.

(28) (previously amended) A machine as in claim (26) wherein the modes of measurement and/or calculation may be manually selected by the user.

(29) (previously amended, now canceled)

(30) (previously amended) A machine as in claims (1) or (2) wherein the measurements and results of calculations may be recorded and later displayed or output for reference.

(31) (previously amended) A machine as in claims (1) or (2) wherein the computing component, preferably, a micro-processor, can automatically select a display mode in accordance with the orientation of the device as detected by the gravity sensing tilt sensor(s) or inertial accelerometers.

(32) (previously amended) A machine as in claim (1) or (2) wherein the ambient temperature is measured and displayed for calibration purposes.

(33) (previously amended, now twice amended) A machine as in claim (1) or (2) wherein a discrete signal, preferably, audio, visual, or electrical, is

emitted when the **unit's measurements** one or more pre-determined angular position(s).

(34) (previously amended, now twice amended) A machine as in claim (1) or (2) wherein an alarm signal is emitted that varies in accordance with the machine's **measurement's** proximity to **one or more** pre-determined angles;

(35) (previously amended) A machine as in claim (1) or (2) also comprising a means of recording, or of storing in a memory, a baseline or zero point for each axis from whence angles may be measured;

(36) (previously amended) A machine as in claim (1) or (2) wherein the functions of angular measurement may be set to reset to zero at pre-determined or user selected angles, presenting, at each applicable angle, a display such as would be exhibited by a conventional bubble inclinometer in the level position.

(37) A machine for measuring angles about one or more axes of a single plane at a time, comprising:

one or more multi-axis, gravity-sensing, tilt sensor(s), or one or more single-axis, gravity sensing tilt-sensor(s), situated about one or more axes;

a microprocessor, that receives inputs from the said tilt sensor(s), translates them into expressions of angular measurement and outputs the results for display, computation, or extraction, and

computes and generates a simulated curved-tube, bubble-level display; and

a unitary means of essentially rigidly mounting components, said means comprising, but not limited to, a case or a frame.

(38) A machine as is claim 37, wherein the one or more gravity-sensing tilt sensor(s) comprise one or more sensors using liquid metal as gravity sensing means.

(39) A machine for measuring angles about a plurality of axes of a single plane at a time, comprising:
one or more multi-axis, gravity-sensing, tilt sensor(s), or one or more single-axis, gravity sensing tilt-sensor(s), comprising one or more sensors using liquid metal as gravity sensing means, situated about one or more axes;

a microprocessor, that receives inputs from the said tilt sensor(s), translates them into expressions of angular measurement and outputs the results for display, computation, or extraction,

displays the results of the measurements and/or calculations in **pictorial or** graphic form.

a unitary means of essentially rigidly mounting components, said means comprising, but not limited to, a case or a frame.

(40) A machine as in claim (39) wherein the display comprises a simulated curved-tube bubble-level.

(41) A machine for measuring angles about a plurality of axes of a single plane at a time, comprising:

one or more multi-axis, gravity-sensing, tilt sensor(s), or one or more single-axis, gravity sensing tilt-sensor(s), comprising one or more sensors using liquid metal as gravity sensing means, situated about one or more axes;

a microprocessor, that receives inputs from the said tilt sensor(s), translates them into expressions of angular measurement and outputs the results for display, computation, or extraction, and computes and generates a simulated curved-tube, bubble-level display; and

a unitary means of essentially rigidly mounting components, said means comprising, but not limited to, a case or a frame.